



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,902	03/19/2004	James Duncan	2003P54045US/I331.113.101	8367

7590 06/24/2005
Dicke, Billig & Czaja, PLLC
Suite 2250
Fifth Street Towers
100 South Fifth Street
Minneapolis, MN 55402

EXAMINER

TA, THO DAC

ART UNIT PAPER NUMBER

2833

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/804,902	DUNCAN ET AL.	
	Examiner	Art Unit	
	Tho D. Ta	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 32-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/19/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 32–36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/11/05.

Claim Rejections - 35 USC § 102

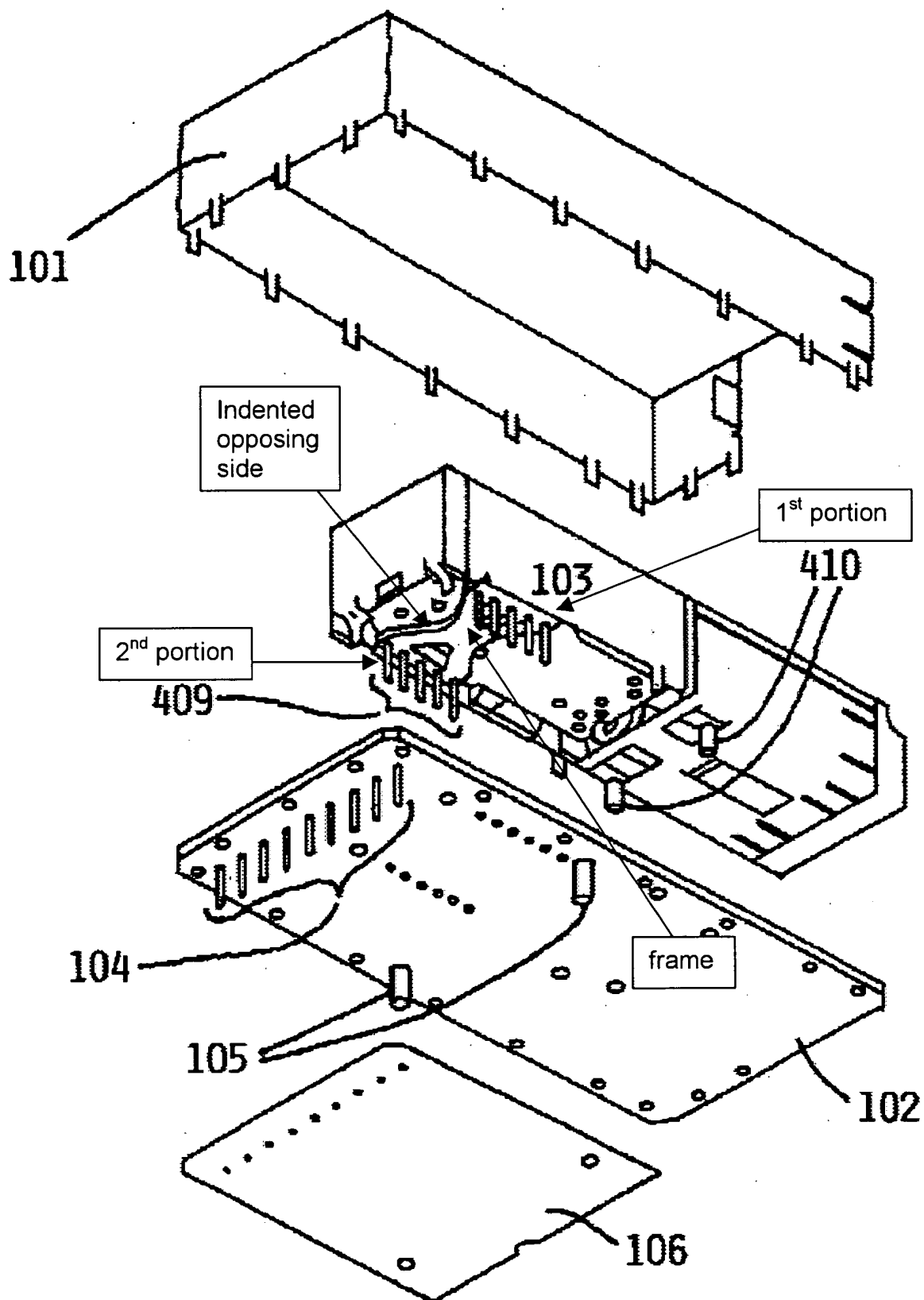
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 8-14, 16-18, 21, 22 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Baltz et al. (6,469,906).

In regard to claim 1, Baltz et al. discloses a pin header for a transceiver, comprising: a frame; a first row of pins 409 extending through the frame (see attached drawing) at a first angle; and a second row of pins 409 extending through the frame at a second angle, wherein the first row of pins 409 is along a first side of the frame and between indented opposing sides (see attached drawing) of the frame and the second row of pins 409 is along a second side of the frame and between the indented opposing sides of the frame.



In regard to claim 2, Baltz et al. discloses that the first angle is 90 degrees and the second angle is 90 degrees.

In regard to claim 8, Baltz et al. discloses that the pins 409 are round.

In regard to claim 9, Baltz et al. discloses that the first row of pins 409 comprises five pins and the second row of pins 409 comprises five pins.

In regard to claim 10, Baltz et al. discloses that each of the pins 409 has a first end and a second end and the first end and the second end are rounded.

In regard to claims 11-13, claimed variations in relative dimensions, which do not specify a device which performs or operates any differently from the prior art, do not patentably distinguish applicant's invention. Gardner v. TEC Systems, Inc., 725 F.2d 1338 (Ct. App. Fed. Cir. 1984). Regarding the particular dimensions of the pins and the spacing between the first row of pins and the second row of pins, to the extent that Baltz et al. does not specify exact dimensions, at the time of the invention, workable dimensions of the pins and the spacing between the first row of pins and the second row of pins would have been a matter of routine experimentation. In re Antonie, 559 F.2d 618 (CCPA 1977). Variations in the distance would have been obvious minor adjustments without patentable significance. See In re Aller, 105 USPQ 233 (CCPA

1955) (Where general conditions of the claim are disclosed in the prior art, it is not inventive to discover optimal or workable ranges by routine experimentation).

In regard to claim 14, Baltz et al. discloses that the pins 409 are post inserted into the frame.

In regard to claim 16, Baltz et al. discloses a pin header for a small form factor transceiver comprising: a frame (see attached drawing); a first row comprising five pins 409 partially encased in a first portion (see attached drawing) of the frame; and a second row comprising five pins 409 partially encased in a second portion (see attached drawing) of the frame, wherein the first portion and the second portion are on opposing sides of the frame and the first portion and the second portion are coupled together by a third portion (middle portion of the frame) of the frame.

In regard to claim 17, Baltz et al. discloses that the frame comprises an hourglass shape.

In regard to claim 18, Baltz et al. discloses that the first portion is at one end of the hourglass shape and the second portion is at another end of the hourglass shape.

In regard to claim 21, Baltz et al. discloses that the third portion of the frame comprises a flat surface configured for picking and placing by automated

equipment.

In regard to claim 22, Baltz et al. discloses that the frame comprises plastic (this is inherent teaching of that device).

In regard to claim 31, Baltz et al. discloses a small form factor transceiver comprising: a housing 160; a printed circuit board 202; and a two row by seven pin header comprising fourteen pins 92 soldered to the printed circuit board 202, wherein the fourteen pins 92 are aligned to extend through apertures 168 in the housing 160.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Leppert (4,695,107).

In regard to claim 1, Leppert discloses a pin header, comprising: a frame 22; a first row of pins 20 extending through the frame 22 at a first angle; and a second row of pins 20 extending through the frame at a second angle, wherein the first row of pins 20 is along a first side of the frame and between indented opposing sides of the frame 22 and the second row of pins 20 is along a second side of the frame and between the indented opposing sides of the frame 22.

In regard to the language "for a transceiver", it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

5. Claims 24-29 are rejected under 35 U.S.C. 102(e) as being anticipated by
Togami et al. (2004/0086240 A1)

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

In regard to claim 24, Togami et al. discloses a small form factor transceiver 180 comprising: a housing 160; a printed circuit board 202; and a two row by five pin header comprising ten pins 92 soldered to the printed circuit board 202, wherein the tens pins 92 are aligned to extend through apertures 168 in the housing 160.

In regard to claim 25, Togami et al. discloses that the two row by five pin header is configured to allow access to a test point on the printed circuit board 202 between the two rows of pins 92 (see fig. 2, there is an access between two rows of pins 92).

In regard to claim 26, Togami et al. discloses that the two row by five pin header is configured to allow components to be mounted to the printed circuit board 202 between the two row by five pin header and the printed circuit board 202.

In regard to claim 27, Togami et al. discloses that the housing 160 comprises metal.

In regard to claim 28, Togami et al. discloses that the two row by five pin header is configured to prevent the pins 92 from contacting the housing 160.

In regard to claim 29, Togami et al. discloses that the small form factor transceiver is a fiber optic transceiver.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6, 7, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baltz et al..

In regard to claims 6 and 7, Baltz et al. does not disclose that the pins 409 comprise at least one of brass and copper and partially gold plated.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Baltz et al. invention by constructing the pins 409 of at least one of brass and copper and partially gold plated since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416 (CCPA 1960).

In regard to claim 23, Baltz et al. does not disclose that the frame is configured to withstand soldering temperatures greater than 220 degrees C.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Baltz et al. invention by constructing the frame of plastic material that configured to withstand soldering temperatures greater than 220 degrees C since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416 (CCPA 1960).

8. Claims 4, 5 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baltz et al. in view of Wu (6,589,074)

Baltz et al. does not disclose a first alignment stud in one corner of the frame and a second alignment stud in another corner of the frame.

Wu discloses a first alignment stud 26 in one corner of the frame 2 and a second alignment stud 26 in another corner of the frame 1 for facilitating the mounting of the frame 2 onto the PCB.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Baltz et al. invention by providing the alignment studs as disclosed by Wu in order to facilitate the mounting of the frame onto the PCB.

9. Claims 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baltz et al. in view of Berg et al. (6,793,533)

In regard to claim 15, Baltz et al. does not disclose that the pins 409 are overmolded in plastic by the frame.

Berg et al. discloses that the pins 16 are overmolded in plastic by the frame 32.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Baltz et al. invention by overmolding the pins 409 in plastic as disclosed by Berg et al. in order to provide a better retaining mechanism for the pins.

10. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Togami et al..

In regard to claim 30, Togami does not disclose how the two row by five pin header is soldered to the printed circuit board. Official Notice is taken that both the concept and the advantages of providing automated equipment for soldering are well known and expected in the art.

11. Claims 3 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baltz et al. in view of Kirayoglu (4,735,587).

Baltz et al. does not disclose that a first standoff next to the first row of pins; and a second standoff next to the second row of pins, wherein the first standoff and the second standoff are configured to prevent wicking between pins as the pin header is soldered into place; the first standoff and the second standoff are configured to maintain spacing between the pins and a printed circuit board.

Kirayoglu discloses that a first standoff 22 next to the first row of pins 16; and a second standoff 22 next to the second row of pins 18, wherein the first standoff 22 and the second standoff 22 are configured to prevent wicking between pins as the pin header is soldered into place (column 2, lines 1-6); the first standoff 22 and the second standoff 22 are configured to maintain spacing between the pins 16, 18 and a printed circuit board 100.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Baltz et al. invention by providing the standoffs as disclosed by Kirayoglu in order to limit wicking during wave soldering and allow cleaning.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho D. Ta whose telephone number is (571) 272-2014. The examiner can normally be reached on M-F (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (571) 272-2800 ext 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



THO D.TA
PRIMARY EXAMINER